

REMARKS

Claims remaining in the present patent application are Claims 1-26.

Claims 1 and 5 are amended herein. Applicants respectfully note that no new matter is added as a result of the amendments presented herein. The Applicants respectfully request consideration of the above captioned patent application in light of the amendments and remarks presented herein.

Examiner Interview Summary

Applicants' Representative and Examiner Craig conducted an Examiner Interview via telephone on October 28, 2005, to discuss a reference to a non-statutory double patenting rejection of Claim 17 that appears in the Official Action. Examiner Craig explained that the reference was in error and that Claim 17 is allowable as indicated.

Applicants thank the Examiner for the Interview.

Allowable Material

The Official Action indicates that Claims 17-26 are allowed. Applicants thank the Examiner for indicating allowed material.

Claims 4 and 6-16 are indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for indicating allowable material.

Claim Objections

Claims 1 and 5 are objected to because of the word “date” which should be “data.” Applicants thank the Examiner for noting this informality. Applicants respectfully assert that the amendments presented herein to Claims 1 and 5 render this objection moot.

35 U.S.C. § 102

Claims 1-3 and 5 stand rejected under 35 USC § 102(b) as allegedly anticipated by Coker (US 5,371,878, “Coker”). Applicants have carefully reviewed the cited reference and respectfully assert that embodiments of the present invention as recited in Claims 1-3 and 5 are not anticipated or rendered obvious by Coker.

With respect to Claim 1, Applicants respectfully assert that Coker does not teach or suggest the limitation “the emulator device implementing the DUT and executing instruction in lock-step with the DUT” as recited by Claim 1. In contrast Coker teaches:

The shadow system and the target-ECS function exactly the same except that the shadow system receives data slightly delayed because of a data buffer between the target-ECS and the shadow system. When recording of unique input events begins, a host system halts the shadow system ... and re-directs the unique input events from the shadow system to the host system where the unique input events are recorded on a permanent storage device. At the end of recording, the host system reads the execution state of the shadow system (which has not changed since the beginning of recording because it was halted) and records the execution state on the permanent storage device. The unique input events can then be re-directed back to the shadow system which executes its software utilizing the unique input events from the saved execution state forward. Thus, the recorded data is not used during the real time scenario but is only used later for test, debug and development purposes. (column 3 lines 13-32, emphasis added)

Applicants respectfully assert that the system of Coker cannot “execut(e) instruction(s) in lock-step with the DUT” as recited by Claim 1 because of the need for the shadow system to halt execution during input to the target system.

For this reason, Applicants respectfully assert that Claim 1 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

In addition with respect to Claim 1, Applicants respectfully assert that Coker does not teach or suggest the limitation “a clock portion that supplies clock information to the DUT and the emulator device” as recited by Claim 1. In contrast, Coker teaches that the target system and shadow/host systems are

connected by “a one-directional bus” (column 2 lines 40-41, Figure 1 items 18 and 26, Figure 3, *inter alia*). Applicants respectfully assert that Coker’s “one-directional bus” does not teach or fairly suggest supplying “clock information to the DUT” as recited by Claim 1.

For this additional reason, Applicants respectfully assert that Claim 1 overcomes the rejections of record, and respectfully solicit allowance of this Claim.

Claims 2-4 depend from Independent Claim 1. Applicants respectfully assert that these Claims overcome the rejections of record as they depend from an allowable base claim, and respectfully solicit allowance of these Claims.

With reference to Claims 2 and 3, Applicants respectfully assert that the rejection improperly equates Coker’s bidirectional data lines 30 and 34 (Figure 1) with the recited “interface for coupling a device under test (DUT) with an emulator device” as recited by Claims 2 and 3. Applicants respectfully assert that Coker’s bidirectional data lines 30 and 34 couple two portions of the emulation system, and do not couple the DUT with the emulation system as recited by the instant claims.

For this additional reason, Applicants respectfully assert that Claims 2 and 3 overcome the rejections of record, and respectfully solicit allowance of these Claims.

With respect to Claim 5, Applicants respectfully assert that this Claim overcomes the rejections of record for at least the rationale previously presented with respect to Claim 1, and respectfully solicit allowance of this Claim.

CONCLUSION

Claims remaining in the present patent application are Claims 1-26. Claims 1 and 5 are amended herein. Applicants respectfully note that no new matter is added as a result of the amendments presented herein. The Applicants respectfully request consideration of the above captioned patent application in light of the amendments and remarks presented herein.


Applicants have reviewed the following reference that was cited but not relied upon, and do not find this reference to teach or fairly suggest the present invention: US 6,922,821.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

WAGNER, MURABITO & HAO LLP

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Anthony C. Murabito
Reg. No. 35,295

Two North Market Street
Third Floor
San Jose, California 95113
(408) 938-9060